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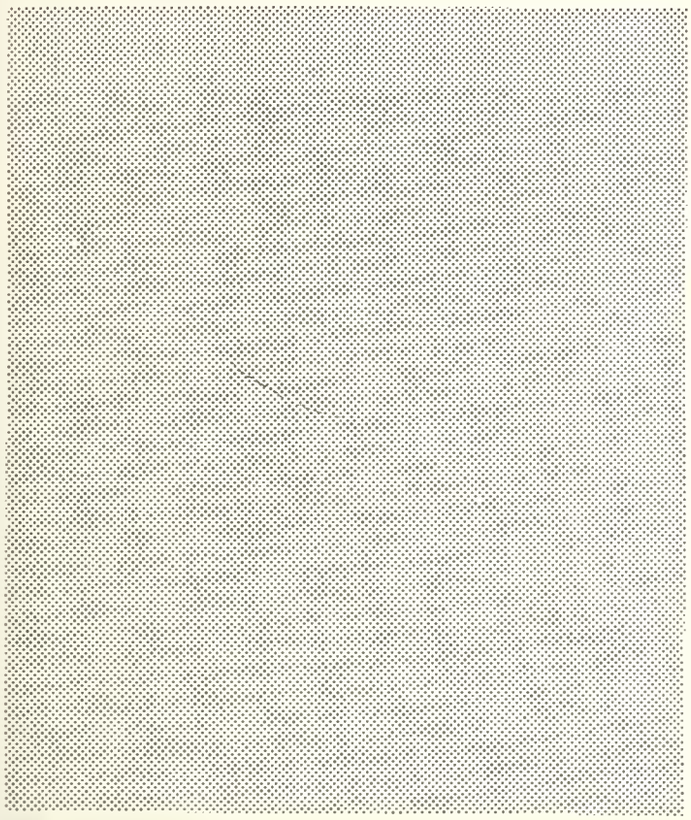
THE TRAFFIC PATTERN OF RAW COTTON SHIPPED FROM WAREHOUSES IN THE UNITED STATES, 1961-62



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THE TRAFFIC PATTERN OF RAW COTTON SHIPPED FROM WAREHOUSES IN THE UNITED STATES, 1961-62 1/

The Cotton Belt spans the entire southern half of the United States and includes the major producing States of Arizona, California, and New Mexico in the West; Oklahoma and Texas in the Southwest; Arkansas, Louisiana, Mississippi, Missouri, and Tennessee in the South Central region; and Alabama, Georgia, South Carolina, and North Carolina in the Southeast. Domestic mill consumption of cotton is concentrated in the Southeast, with only minor volumes consumed in other areas of the country. Exports are mainly from ports in California, Texas, and Louisiana, and across the U.S. - Canadian border.

The destinations to which cotton is shipped from the widely dispersed Cotton Belt are determined by a number of factors. Among these are the proximity of the producing region to the consuming center or port, the qualities of the cotton produced in the particular region, and the quality requirements of the destinations. Little information has been available as to the major destinations to which specific producing regions ship cotton. Similarly, only fragmentary information has been available on the relative importance of railroads and motortrucks in the movement of cotton in these regions.

The intent of this article is to show the major destinations to which cotton was shipped from the producing regions in 1961-62 and to indicate the relative importance of rail and truck shipments. Data on shipments during the 1961-62 season were secured from Government-approved warehouses in the producing regions. 2/

Destinations as used in this article are "first destinations" and not necessarily "final destinations." Consequently, total shipments included a substantial volume of reshipments. Information is not available for determining the extent to which reshipments contributed to the total shipments.

Shipments Originiated in the Western Region

Destinations.--Shipments of about 2.8 million bales of cotton were reported by warehouses located in Arizona, California and New Mexico. 3/ Of this total movement of western cotton, 45 percent was shipped to the Southeastern States and 42 percent to California and Texas ports (fig. 3). Minor shipments included 7 percent to interior concentration points, 1 percent to the Northeastern States, and 3 percent to Canada.

Shipments to the Southeast accounted for about 56 percent of the total shipments in California compared with 27 percent in Arizona and New Mexico. Conversely, 61 percent and 52 percent, respectively, of the total shipments in Arizona and New Mexico went to ports compared with 31 percent in California. Movement of cotton to California ports was almost exclusively from Arizona and California; movement to Texas ports was mainly from New Mexico.

The interior concentration of western cotton was from Arizona to California, from California to Texas and the South

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2/ These warehouses were surveyed by the Commodity Credit Cooporation office in New Orleans in 1963. All shipments are not included; a small number of approved warehouses did not report and some warehouses that ship cotton are not Government approved and, thus, were not surveyed. Moreover, a small proportion of cotton is known to have moved directly from the gin to domestic mills and to port warehouses for export.

3/ California shipments were partly estimated.

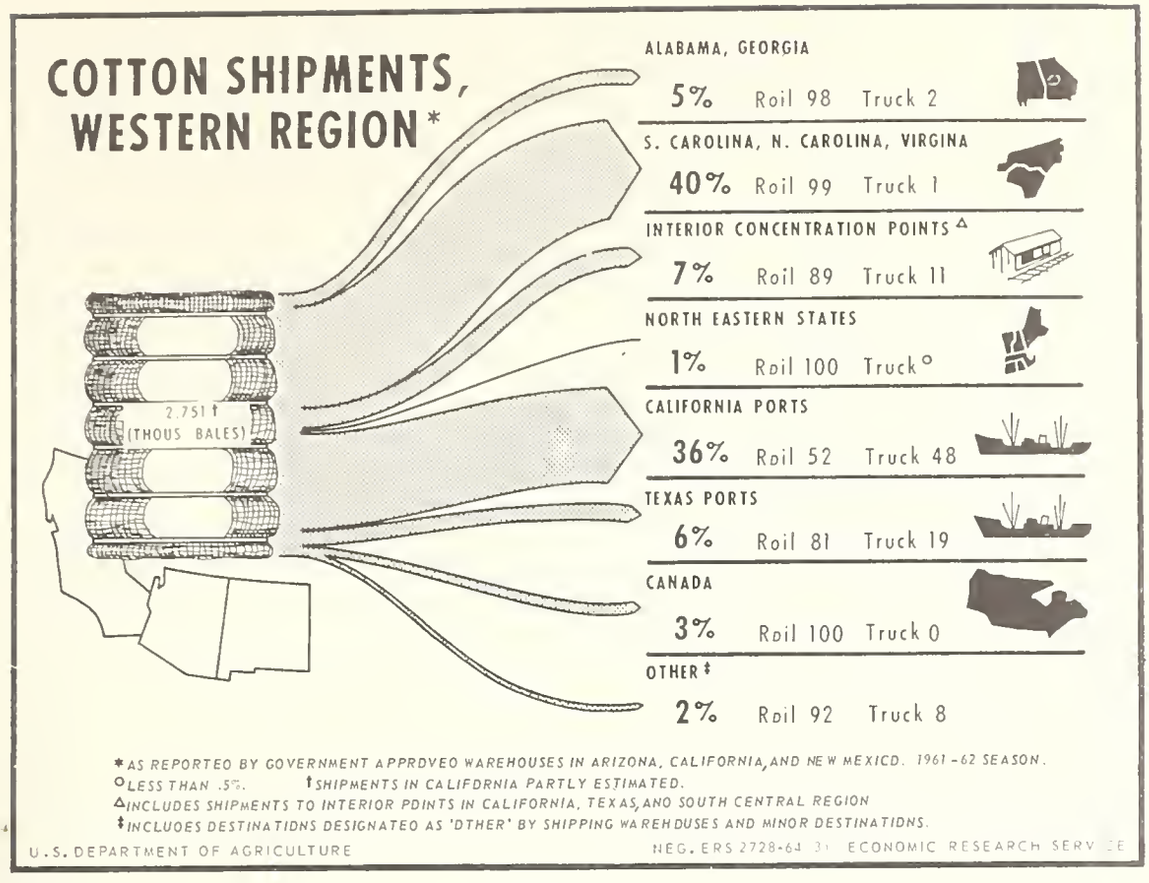

Figure 3

Central region, and from New Mexico to Texas. 4/

Carriers.--Railroads hauled nearly four-fifths of the cotton shipped in the Western region, being used almost exclusively for shipments to the Southeastern and Northeastern States and exclusively to Canada. Trucks were employed extensively for shipments to the ports, hauling nearly one-half of the cotton shipped to California ports and one-fifth of the cotton shipped to the Texas ports (fig. 3). Truck shipments to ports from this region represented 13 percent of the total truck shipments of cotton in the United States.

Shipments Originated in the Southwestern Region

Destinations.--Shipments totaling approximately 4.5 million bales of cotton were reported by warehouses located in Oklahoma and Texas. Of this amount, 31 percent was shipped to the Southeastern States and 56 percent was shipped to Texas ports (fig. 4). Minor shipments included 8 percent to interior concentration points, 1 percent to the Northeastern States, and 2 percent to Canada.

Shipping patterns were similar for both Oklahoma and Texas; however, there was considerable variation in shipping patterns

4/ Interior concentration as used in this article consists of shipments to nonconsuming points within the Cotton Belt. This cotton is eventually reshipped to final destinations.

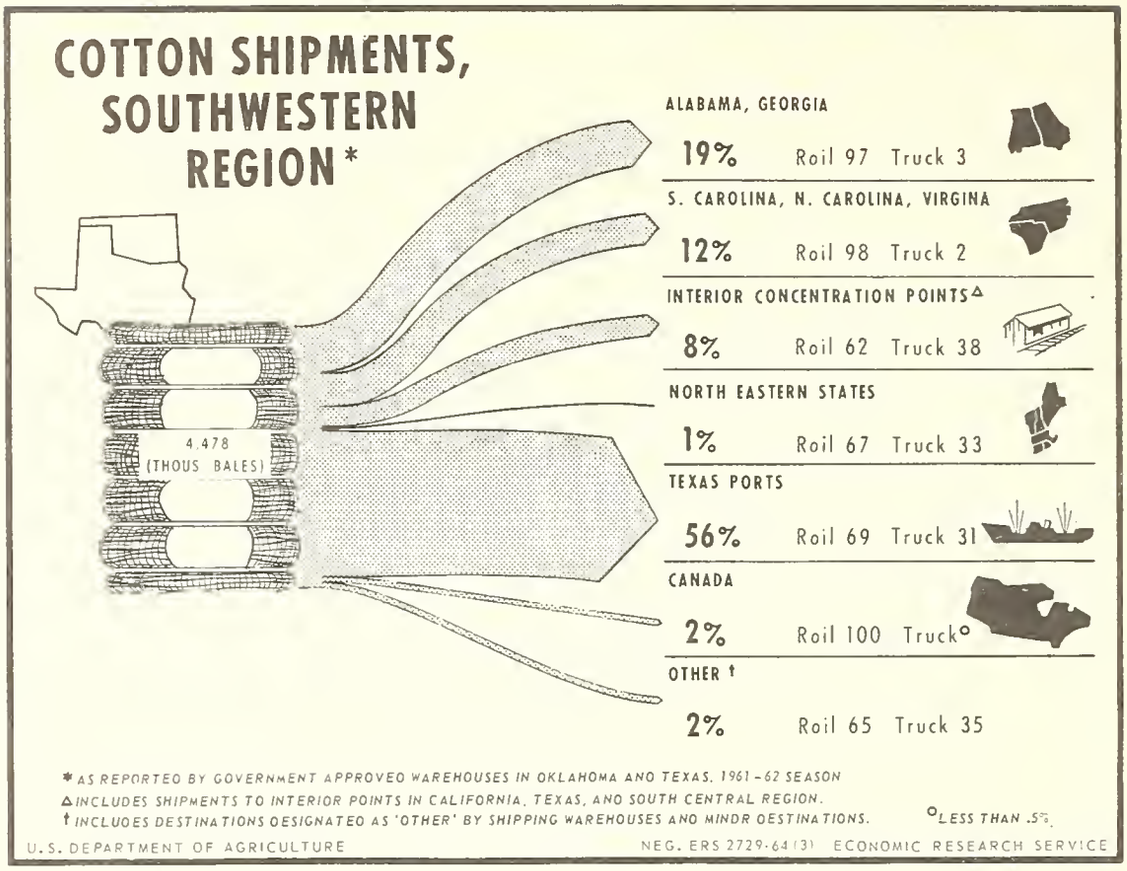

Figure 4

for specialized producing areas within the region. For example, port shipments represented a much higher proportion in the Plains of Texas than for the entire region; but shipments to the Southeast represented a considerably smaller proportion for this area than for the total region. Some of the variation in flow patterns within the region is explained by the fact that not all port shipments in the Southwestern region were for export, but for concentration and reshipment to domestic consuming centers. Warehouses at Texas ports reported shipments of over one-half million bales to domestic consuming centers in 1961-62.

Cotton shipped to interior concentration points was mainly from Oklahoma to Texas and shipments within Texas. Only a minor volume was shipped to points in California and the South Central region.

Carriers.--Railroads hauled about 78 percent of the cotton shipped in the Southwestern region, with almost complete domination of the longer hauls to the Southeast and to Canada. Railroads also hauled more than two-thirds of the volume shipped to ports (fig. 4). Undoubtedly, some of this traffic was to the ports for concentration and reshipment to domestic consuming centers under the "intransit" privileges granted by the railroads.

Of the 22 percent that moved by truck, virtually the entire movement (20 percent) consitituted short and long haul intrastate movements to other Texas warehouses and ports. There was a particularly heavy interarea highway movement between the ports of Brownsville, Corpus Christi, Houston, and Galveston. Apparently, the requirement for a hurried exchange of cotton between coastal ports to "make up" ship loadings was met by the use of rapid truck movement, rather than the slower rail shipments.

This heavy intrastate movement by

trucks constituted approximately 24 percent of the entire truck movement in the Cotton Belt.

Shipments Originated in the South Central Region

Destinations.--Warehouses in the South Central region reported shipments of about 4.7 million bales of cotton in 1961-62, of which 70 percent was to the Southeastern States, 10 percent to interior concentration points, 3 percent to the Northeastern States, 9 percent to the port of New Orleans, and 6 percent to Canada (fig. 5).

Shipments to the Southeast ranged from about 64 percent of the total shipment in Louisiana to 76 percent of the total shipment in Arkansas. Shipments to the port of New Orleans ranged from only 2 percent of the total shipments in Missouri to 20 percent in Louisiana. A higher proportion of the total shipments from Tennessee and Missouri than from other South Central States went to the Northeastern States and Canada.

The concentration of cotton was within the region, with a substantial proportion going to Tennessee for concentration in Memphis.

Carriers.--The railroads hauled about 79 percent of the cotton shipped in the South Central region compared with 21 percent by truck. Truck movements as a proportion of total shipments ranged from about 12 percent in Tennessee to 32 percent in Mississippi, with trucks hauling a much higher proportion of total shipments in Arkansas, Mississippi, and Missouri than in Tennessee and Louisiana.

In this region, trucks were not only an important carrier of cotton to the ports--as in the West and Southwest--but were also a definite competitor of the railroads for traffic to the Southeast. Trucks hauled 37 percent of the total cotton shipped to nearby Alabama and Georgia compared with 31 percent to the port of New Orleans (fig. 5).

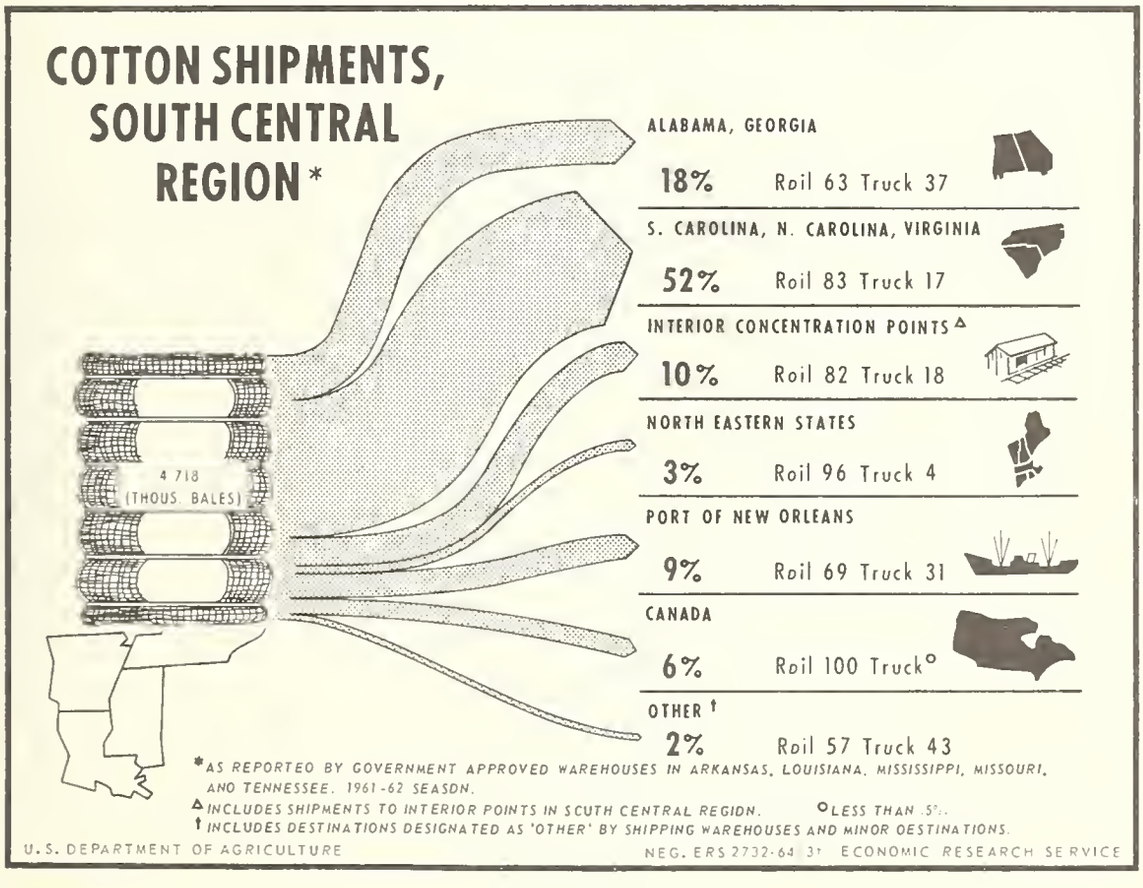

Figure 5

Even though trucks hauled only 17 percent of the cotton shipped to the Carolinas and Virginia, this represented a volume of cotton almost equal to the combined volume shipped by truck to Alabama and Georgia and to the port of New Orleans.

Truck movements to the Southeast and the port of New Orleans from the South Central region accounted for 23 percent of total truck shipments of cotton in the United States.

Shipments Originated in the Southeastern Region

Destinations.--The Southeastern States of Alabama, Georgia, South Carolina, and North Carolina are the major cotton consuming States in the United States, accounting for about 90 percent of the domestic consumption in 1961-62. Therefore, it would be expected that shipments of cotton in this region would be limited mainly to movement within the region. Furthermore, shipments in the Southeastern region not only include cotton produced in the region but also a substantial volume that was shipped from other regions for concentration before being disseminated to specific consuming establishments.

Total shipments in this region amounted to 2-1/4 million bales in 1961-62 (fig. 6). Intrastate shipments were extremely heavy in each of the States, ranging from 40 percent of total shipments in Alabama to 83 percent in North Carolina. Interstate shipments in the Southeast were mainly from Alabama to Georgia and the Carolinas, from Georgia to Alabama and the Carolinas, from South Carolina to North Carolina and Georgia, and from North Carolina to South Carolina. Only a minor volume of cotton was shipped to Virginia and to the ports in this area.

Carriers.--Since shipments in the Southeast were mostly within the region, trucks were the major carriers, averaging about

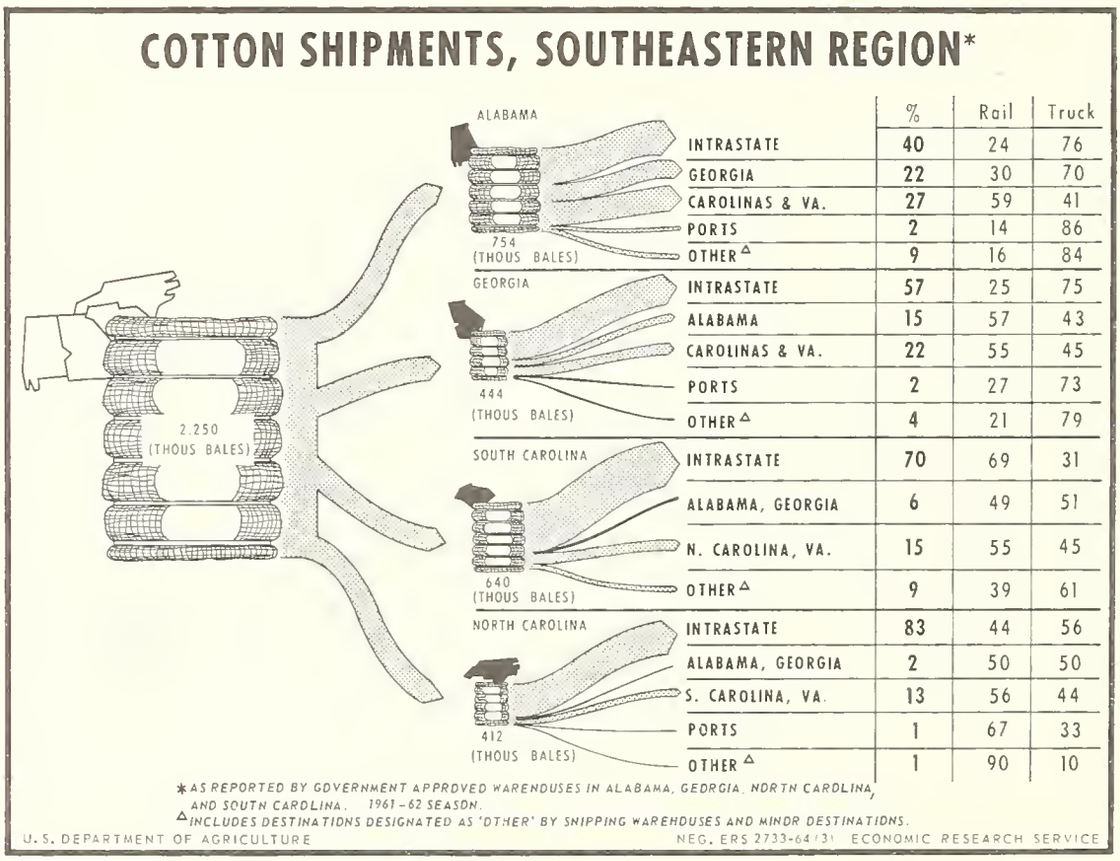

Figure 6

56 percent of the total shipments in the region and ranging from 37 percent in South Carolina to 66 percent in Alabama. Trucks hauled practically all of the cotton produced in the Southeast that was shipped to consuming establishments. Rail movements in this area were mostly "in transit" cotton from other producing regions. Rail shipments were much greater in the Carolinas than in Alabama and Georgia because of the smaller production in those States and the more voluminous rail shipments into those States from other regions. (fig. 6). Of the extremely heavy rail shipments in South Carolina, nearly 95 percent were shipped from the warehouses in Anderson, Greenville, Greenwood, Columbia, and Spartanburg--all major consuming centers for raw cotton.

Thirty-three percent of the total U.S. truck shipments of cotton were accounted for by the States within the Southeastern region.

Shipments Originated in All Producing Regions

In total, more than 14 million bales of cotton were reported shipped in 1961-62; with 19 percent originating in the West, 32 percent in the Southwest, 33 percent in the South Central region, and 16 percent in the Southeast (table 14). About 8 million bales were shipped to the Southeastern consuming States; distributed 33 percent to Alabama and Georgia and 67 percent to the Carolinas and Virginia. Shipments to the Southeast were only slightly less than consumption by these states in 1961-62.

Shipments to Alabama and Georgia represented about equal proportions from the Southwest, South Central, and Southeast, but only 5 percent from the West. The South Central region was a much heavier shipper to the Carolinas and

Table 14.--Total cotton shipped to specified destinations and proportion originated in specified regions, 1961-62 season

Destination	Quantity shipped	Proportion of shipments originated in				
		West	Southwest	South Central	Southeast	All regions
	1,000 bales	Pct.	Pct.	Pct.	Pct.	Pct.
Alabama and Georgia	2,686	5	32	32	31	100
South Carolina, North Carolina and Virginia	5,359	20	10	46	24	100
Interior concentration points 1/	1,058	18	33	49	---	100
New England and Eastern States	211	14	25	61	3/	100
Ports	4,101	28	61	10	1	100
Canada	404	18	18	64	3/	100
Other 2/	377	15	19	26	40	100
All destinations	14,196	19	32	33	16	100

1/ Includes intrastate shipments in non-consuming States and interstate shipments to non-consuming States.

2/ Includes destinations designated by shipping warehouses as "other" and minor destinations.

3/ Less than 0.5 percent.

Virginia and also to the Northeast and Canada than other regions. The Southwestern region was the lightest shipping region to the Carolinas and Virginia.

Port shipments represented the second largest volume amounting to 4.1 million bales, with nearly 90 percent of these shipments originating in the Southwest and West. Over 1 million bales were shipped to interior concentration points within the nonconsuming regions. Almost one-half of these shipments were in the South Central region, with a major proportion most likely going to Memphis for concentration and reshipment to consuming establishments.